O'Bryen, Barbara

From: Chan, Christina
Sent: Friday, March 08, 2002 12:51 PM
To: Zhou, Shubo (AU1631); O'Bryen, Barbara
Subject: RE: RUSH search approval

Please rush. Thanks Chris

-----Original Message-----
Fr m: Zhou, Shubo (AU1631)
Sent: Friday, March 08, 2002 12:49 PM
T : Chan, Christina
Subject: RUSH search approval

Hi Chris,

I'd appreciate your approval for a RUSH search. Also, please just email back to me and I'll email it to Barb Obryen.

09/198,779

Registry search

Enzyme name: Methionine Adenosyltransferase

plant names: maize or soybean

Thanks,

Joe

Shubo "Joe" Zhou, Ph.D.
Patent Examiner
(703)-605-1158, CM1/12B03
AU 1631, US PTO

Point of Contact:
Barb O'Bryen
Technical Information Specialist
STIC CM1 6A05 308-4291

BOB
3-8-02

herbicide

pesticide

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O'Bryen, Barbara

From: Zhou, Shubo (AU1631)
Sent: Friday, March 08, 2002 12:46 PM
To: O'Bryen, Barbara

Thanks Barb, here are the info.

09/198,779

To see if there are sequences (protein and DNA) for maize or sybeen enzyme Methionine Adenosyltransferase

either a registry search or any other search.

Joe

Shubo "Joe" Zhou, Ph.D.
Patent Examiner
(703)-605-1158, CM1/12B03
AU 1631, US PTO

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=> fil reg
FILE 'REGISTRY' ENTERED AT 14:46:46 ON 08 MAR 2002
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STRUCTURE FILE UPDATES:    6 MAR 2002  HIGHEST RN 398994-63-3
DICTIONARY FILE UPDATES:   6 MAR 2002  HIGHEST RN 398994-63-3

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

The P indicator for Preparations was not generated for all of the
CAS Registry Numbers that were added to the H/Z/CA/CAplus files between
12/27/01 and 1/23/02.  Use of the P indicator in online and SDI searches
during this period, either directly appended to a CAS Registry Number
or by qualifying an L-number with /P, may have yielded incomplete results.
As of 1/23/02, the situation has been resolved.  Also, note that searches
conducted using the PREP role indicator were not affected.

Customers running searches and/or SDIs in the H/Z/CA/CAplus files
incorporating CAS Registry Numbers with the P indicator between 12/27/01
and 1/23/02, are encouraged to re-run these strategies.  Contact the
CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698,
worldwide, or send an e-mail to help@cas.org for further assistance or to
receive a credit for any duplicate searches.

=> e methionine adenosyltransferase/cn
E1            1      METHIONINE .GAMMA.-LYASE (TRICHOMONAS VAGINALIS GENE MGL2 SU
                     BUNIT)/CN
E2            1      METHIONINE 2,2,2-TRICHLOROETHYL ESTER/CN
E3            1 --> METHIONINE ADENOSYLTRANSFERASE/CN
E4            1      METHIONINE ADENOSYLTRANSFERASE (PSEUDOMONAS AERUGINOSA STRAI
                     N PAO1 GENE METK)/CN
E5            1      METHIONINE ADENOSYLTRANSFERASE (XYLELLA FASTIDIOSA GENE XF03
                     92)/CN
E6            1      METHIONINE ADENOSYLTRANSFERASE 1 (ADOMET SYNTHETASE); METHYL
                      AND PROPYLAMINE DONOR, COREPRESSOR OF MET GENES (ESCHERICHI
                     A COLI O157:H7 STRAIN EDL933 GENE METK)/CN
E7            1      METHIONINE ADENOSYLTRANSFERASE 1 (ESCHERICHIA COLI STRAIN O1
                     57:H7 GENE ECS3818)/CN
E8            1      METHIONINE AMINO PEPTIDASE MPN186 (MYCOPLASMA PNEUMONIAE STR
                     AIN M129 GENE MAP)/CN
E9            1      METHIONINE AMINOPEPTIDASE/CN
E10           1      METHIONINE AMINOPEPTIDASE (ARABIDOPSIS THALIANA CLONE T6J4 G
                     ENE T6J4.3)/CN
E11           1      METHIONINE AMINOPEPTIDASE (ARABIDOPSIS THALIANA GENE AT2G441
                     80)/CN
E12           1      METHIONINE AMINOPEPTIDASE (ARABIDOPSIS THALIANA GENE AT2G452
                     40)/CN

=> s e3
L11           1 "METHIONINE ADENOSYLTRANSFERASE"/CN
```

none specifically from corn or soybeans

=> d ide

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 9012-52-6 REGISTRY
CN Adenosyltransferase, methionine (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Adenosylmethionine synthetase
CN ATP-methionine adenosyltransferase
CN ATP:L-methionine-S-adenosyltransferase
CN E.C. 2.4.2.13
CN E.C. 2.5.1.6
CN **Methionine adenosyltransferase**
CN Methionine S-adenosyltransferase
CN Methionine-activating enzyme
CN S-Adenosyl-L-methionine synthetase
CN S-Adenosylmethionine synthase
CN S-Adenosylmethionine synthetase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CEN, EMBASE, TOXCENTER, USPATFULL

sequence not available

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
620 REFERENCES IN FILE CA (1967 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
620 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> e methionine adenosyl transferase/cn

E1	1		METHIONINE .GAMMA.-LYASE (TRICHOMONAS VAGINALIS GENE MGL2 SUBUNIT)/CN
E2	1		METHIONINE 2,2,2-TRICHLOROETHYL ESTER/CN
E3	0	-->	METHIONINE ADENOSYL TRANSFERASE/CN
E4	1		METHIONINE ADENOSYLTRANSFERASE/CN
E5	1		METHIONINE ADENOSYLTRANSFERASE (PSEUDOMONAS AERUGINOSA STRAIN PAO1 GENE METK)/CN
E6	1		METHIONINE ADENOSYLTRANSFERASE (XYLELLA FASTIDIOSA GENE XF0392)/CN
E7	1		METHIONINE ADENOSYLTRANSFERASE 1 (ADOMET SYNTHETASE); METHYL AND PROPYLAMINE DONOR, COREPRESSOR OF MET GENES (ESCHERICHIA COLI O157:H7 STRAIN EDL933 GENE METK)/CN
E8	1		METHIONINE ADENOSYLTRANSFERASE 1 (ESCHERICHIA COLI STRAIN O157:H7 GENE ECS3818)/CN
E9	1		METHIONINE AMINO PEPTIDASE MPN186 (MYCOPLASMA PNEUMONIAE STRAIN M129 GENE MAP)/CN
E10	1		METHIONINE AMINOPEPTIDASE/CN
E11	1		METHIONINE AMINOPEPTIDASE (ARABIDOPSIS THALIANA CLONE T6J4 GENE T6J4.3)/CN
E12	1		METHIONINE AMINOPEPTIDASE (ARABIDOPSIS THALIANA GENE AT2G44180)/CN

```
=> fil agricola medline caba capl biosis jic scisearch toxcenter
FILE 'AGRICOLA' ENTERED AT 14:52:00 ON 08 MAR 2002

FILE 'MEDLINE' ENTERED AT 14:52:00 ON 08 MAR 2002

FILE 'CABA' ENTERED AT 14:52:00 ON 08 MAR 2002
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FILE 'JICST-EPLUS' ENTERED AT 14:52:00 ON 08 MAR 2002
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COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R)

FILE 'TOXCENTER' ENTERED AT 14:52:00 ON 08 MAR 2002
COPYRIGHT (C) 2002 ACS

=> d que l5; d que l9; d que l13; d que l14; s l5 or l9 or l13
L2          1648 SEA (METHIONINE(W)(ADENOSYL TRANSFERASE# OR ADENOSYLTRANSFERASE
                 #))
L3        809821 SEA (CORN OR MAIZE OR SOYBEAN# OR SOY BEAN# OR GLYCINE(W) MAX)

L4       2551751 SEA SEQUENC?
L5             2 SEA L2 AND L3 AND L4


L2          1648 SEA (METHIONINE(W)(ADENOSYL TRANSFERASE# OR ADENOSYLTRANSFERASE
                 #))
L3        809821 SEA (CORN OR MAIZE OR SOYBEAN# OR SOY BEAN# OR GLYCINE(W) MAX)

L6       2870192 SEA DNA OR DEOXYRIBONUCL? OR DEOXY RIBONUCLEIC
L7       8096324 SEA PROTEIN# OR PEPTIDE# OR AMINO ACID#
L8        993374 SEA NUCLEOTIDE#
L9             2 SEA L2(10A) L3 AND (L6 OR L7 OR L8)


L3        809821 SEA (CORN OR MAIZE OR SOYBEAN# OR SOY BEAN# OR GLYCINE(W) MAX)

L4       2551751 SEA SEQUENC?
L12         1313 SEA (ADENOSYLMETHIONINE OR ADENOSYL METHIONINE)(W)(SYNTHASE#
                 OR SYNTHETASE#)
L13            6 SEA L12 AND L3 AND L4


L3        809821 SEA (CORN OR MAIZE OR SOYBEAN# OR SOY BEAN# OR GLYCINE(W) MAX)

L6       2870192 SEA DNA OR DEOXYRIBONUCL? OR DEOXY RIBONUCLEIC
L7       8096324 SEA PROTEIN# OR PEPTIDE# OR AMINO ACID#
L8        993374 SEA NUCLEOTIDE#
L12         1313 SEA (ADENOSYLMETHIONINE OR ADENOSYL METHIONINE)(W)(SYNTHASE#
                 OR SYNTHETASE#)
```

L14 0 SEA L12(10A) L3 AND (L6 OR L7 OR L8)

L15 8 L5 OR L9 OR L13

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16 8 DUP REM L15 (0 DUPLICATES REMOVED)
ANSWERS '1-5' FROM FILE CAPLUS
ANSWER '6' FROM FILE BIOSIS
ANSWERS '7-8' FROM FILE SCISEARCH

=> d ibib ab l16 1-8

These are references as where you may find the sequence in the full-text article

L16 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:101336 CAPLUS
DOCUMENT NUMBER: 134:158478
TITLE: Recombinant expression vectors for the modification of polyamine levels in plants
INVENTOR(S): Barcelo-ensesa, Pilar; Tiburcio, Antonio F.
PATENT ASSIGNEE(S): E.I. Dupont De Nemours and Company, USA; Dupont (Uk) Limited
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009358	A1	20010208	WO 2000-GB2871	20000728
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1117809	A1	20010725	EP 2000-948156	20000728
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: GB 1999-17875 A 19990730
WO 2000-GB2871 W 20000728

AB The invention provides a nucleic acid construct for transforming a plant cell, the construct comprising a promoter operatively linked to a nucleotide **sequence**, the promoter being selectively activated in cells of propagating material for a plant, the nucleotide **sequence** being such that its transcription leads to an alteration in the levels of polyamines produced in transformed cells of propagating material relative to untransformed cells. A gene encoding a protein involved in polyamine biosynthesis is introduced to a plant cell to affect alterations in the levels of polyamines produced. A redn. in the levels of polyamines produced in the transformed cell is effected by the expression of at least one corresponding antisense RNA or of at least one sense-RNA for achieving a co-suppression effect. A host cell, a transgenic plant cell, or plant obtained by regenerating transgenic plant cells, which has been transformed and/or genetically modified by a vector described, are claimed. Propagating material obtainable from the plants are claimed. A foodstuff obtainable from or contg. the propagating material are claimed.

A process for altering the levels of polyamines in a propagating material for a cultivated plant by transforming a plant cell with a vector as defined are claimed. The plasmid vector, pHMW-ADC(+), contg. the construct comprising the IDx5 promoter, isolated from the Glu-iD-1 gene from Triticea cv. Cheyenne, the oat arginine decarboxylase (ADC) gene and the 35S terminator was constructed. Transformation of immature wheat embryos with phmw-adc(+) was accomplished by particle bombardment. Seeds from the transgenic wheat line 787.9.1 (Cadenza variety) showed generally increased levels of the different polyamines as compared to the levels of polyamines in seeds of the control plants, with the increase in putrescine levels being the most dramatic. Seeds of the transgenic wheat line 832.4.2 and 832.4.3 (Imp variety) also showed increased levels of the different polyamines as compared to seeds of control plants.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:144998 CAPLUS
DOCUMENT NUMBER: 132:204841
TITLE: Methyltransferase in the synthesis of betaine from glycine, nucleic acid molecules encoding the methyltransferases, and their recombinant expression and uses
INVENTOR(S): Reinikainen, Tapani; Nyyssola, Antti; Kerovuo, Janne
PATENT ASSIGNEE(S): Cultor Corporation, Finland
SOURCE: PCT Int. Appl., 176 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011142	A2	20000302	WO 1999-EP6037	19990818
WO 2000011142	A3	20000622		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9957364	A1	20000314	AU 1999-57364	19990818
EP 1112352	A2	20010704	EP 1999-944425	19990818
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1998-137434 A 19980820
WO 1999-EP6037 W 19990818

AB The present invention relates to proteins which are capable of functioning as methyltransferases. More, specifically, the present invention relates to methyltransferases from Actinopolyspora halophila and Ectothiorhodospira halochloris which are capable of carrying out at least one of the following reactions: the conversion of glycine to sarcosine, sarcosine to dimethylglycine and dimethylglycine to betaine in the presence of a Me group donor. The betaine operons of these two organisms also contain the gene encoding S-**adenosylmethionine synthase**. Furthermore, the present invention relates to nucleic acid mols. encoding such methyltransferase proteins, recombinant organisms which are capable of expressing said nucleic acids as well as the use of said recombinant organisms.

L16 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:116075 CAPLUS
DOCUMENT NUMBER: 132:304134
TITLE: The complete **sequence** of a heterochromatic island from a higher eukaryote
AUTHOR(S): McCombie, W. Richard; De la Bastide, Melissa; Habermann, Kristina; Parnell, Laurence; Dedhia, Neilay; Gnoj, Lidia; Schutz, Kristin; Huang, Emily; Spiegel, Lori; Yordan, Cristy; Sehkon, Mundeep; Murray, Jennifer; Sheet, Paul; Cordes, Matt; Threideh, Jane; Stoneking, Tamberlyn; Kalicki, Joelle; Graves, Tina; Harmon, Gwen; Edwards, Jennifer; Latreille, Phil; Courtney, Laura; Cloud, James; Abbott, Amanda; Scott, Kelsi; Johnson, Doug; Minx, Pat; Bentley, Dan; Fulton, Bob; Miller, Nancy; Greco, Tracie; Kemp, Kim; Kramer, Jason; Fulton, Lucinda; Mardis, Elaine; Dante, Mike; Pepin, Kym; Hillier, LaDeana; Nelson, Joanne; Spieth, John; Simorowski, Joe; May, Bruce; Ma, Peter; Preston, Ray; Vil, Daniel; See, Lei Hoon; Shekher, Monica; Matero, Anthony; Shah, Ravi; Swaby, I'Kyori; O'Shaughnessy, Andrew; Rodriguez, Milka; Hoffman, Jane; Till, Sally; Granat, Susan; et al.
CORPORATE SOURCE: Cold Spring Harbor Laboratory, Lita Annenberg Hazen Genome Center, Cold Spring Harbor, NY, 11724, USA
SOURCE: Cell (Cambridge, Mass.) (2000), 100(3), 377-386
CODEN: CELLB5; ISSN: 0092-8674
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Heterochromatin, constitutively condensed chromosomal material, is widespread among eukaryotes but incompletely characterized at the nucleotide level. We have **sequenced** and analyzed 2.1 megabases (Mb) of Arabidopsis thaliana chromosome 4 that includes 0.5-0.7 Mb of isolated heterochromatin that resembles the chromosomal knobs described by Barbara McClintock in **maize**. This isolated region has a low d. of expressed genes, low levels of recombination and a low incidence of gene trap insertion. Satellite repeats were absent, but tandem arrays of long repeats and many transposons were found. Methylation of these **sequences** was dependent on chromatin remodeling. Clustered repeats were assocd. with condensed chromosomal domains elsewhere. The complete **sequence** of a heterochromatic island provides an opportunity to study **sequence** determinants of chromosome condensation.
REFERENCE COUNT: 90 THERE ARE 90 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:806766 CAPLUS
DOCUMENT NUMBER: 130:49186
TITLE: Plant amino acid biosynthetic enzymes and their gene DNA **sequences**
INVENTOR(S): Falco, Saverio Carl; Allen, Stephen M.; Rafalski, J. Antoni; Hitz, William D.; Kinney, Anthony John; Abell, Lynn Marie; Thorpe, Catherine Jane
PATENT ASSIGNEE(S): E.I. Du Pont de Nemours and Co., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855601	A2	19981210	WO 1998-US11692	19980605
WO 9855601	A3	19990304		
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9877270	A1	19981221	AU 1998-77270	19980605
EP 979296	A2	20000216	EP 1998-925282	19980605
R: DE, FR, GB, IT				
BR 9809967	A	20000801	BR 1998-9967	19980605

PRIORITY APPLN. INFO.:

US 1997-48771	P	19970606
US 1997-49443	P	19970612
US 1997-48774	P	19970606
WO 1998-US11692	W	19980605

AB This invention relates to an isolated nucleic acid fragment encoding a plant enzyme that catalyzes steps in the biosynthesis of lysine, threonine, methionine, cysteine and isoleucine from aspartate, the enzyme a member selected from the group consisting of: dihydrodipicolinate reductase, diaminopimelate epimerase, threonine synthase, threonine deaminase and S-**adenosylmethionine synthetase**. The invention also relates to the construction of a chimeric gene encoding all or a portion of the enzyme, in sense or antisense orientation, wherein expression of the chimeric gene results in prodn. of altered levels of the enzyme in a transformed host cell.

L16 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1996:719572 CAPLUS
DOCUMENT NUMBER:	126:3385
TITLE:	The **maize** two-dimensional gel **protein** database: towards an integrated genome analysis program
AUTHOR(S):	Touzet, P.; Riccardi, F.; Morin, C.; Damerval, C.; Huet, J. -C.; Pernollet, J. -C.; Zivy, M.; De Vienne, D.
CORPORATE SOURCE:	Station de Genetique Vegetale, INRA/UPS/INA, Gif-sur-Yvette, 91190, Fr.
SOURCE:	Theor. Appl. Genet. (1996), 93(5-6), 997-1005 CODEN: THAGA6; ISSN: 0040-5752
PUBLISHER:	Springer
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB This paper describes the first **maize** database of **proteins** sepd. by two-dimensional electrophoresis. Fifty-six coleoptile **proteins** and 18 leaf **proteins** from two **maize** lines were partially microsequenced. Thirty-six **proteins** (49%) displayed high similarity with database **proteins**. Nine of these **proteins**, representing five different functions, had never been described in **maize**. No conclusive function could be found for 45 polypeptides (61% of the microsequenced **proteins**). In addn., an alternative identification method, based on **amino acid** anal., allowed candidates to be proposed for 17 **proteins** out of 44 addnl. **proteins** analyzed in the coleoptiles. These results are stored in a database which also includes, when available, genetic information about the chromosomal location of structural genes and regulatory factors of **proteins**. This database is being used in the context of a project on the genetic mapping of the expressed genome in **maize**.

L16 ANSWER 6 OF 8 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1981:179809 BIOSIS
DOCUMENT NUMBER: BA71:49801
TITLE: HEPATIC ENZYME ACTIVITIES AND MUSCLE NUCLEIC-ACID CONTENT IN SWINE FED A DIET IMBALANCED BY METHIONINE EXCESS FOR 100 DAYS.
AUTHOR(S): FAU D; DELHOMME B; BOURDON D; RERAT A
CORPORATE SOURCE: CENTRE DE RECHERCHES SUR LA NUTRITION, C.N.R.S., 92190 MEUDON-BELLEVUE.
SOURCE: C R HEBD SEANCES ACAD SCI SER D SCI NAT, (1980 (RECD 1981)) 291 (6), 565-568.
CODEN: CHDDAT. ISSN: 0567-655X.
FILE SEGMENT: BA; OLD
LANGUAGE: French
AB Twelve growing swine were fed an 18% **protein** diet (maize and soybean) for 100 days containing 0.6% S **amino acids** (basal diet), or 0.6 and 1% DL-methionine added to the control diet. The excess reduced food intake and body wt gain mainly during the finishing period (60-100 kg). The RNA:**DNA** and **protein**: **DNA** ratios in the muscle did not show any difference. Hepatic activities of some enzymes involved in glycolysis, gluconeogenesis and **amino acid** metabolism, were unchanged except that of methionine adenosyl transferase, the 1st step of transsulfuration, which was induced in proportion with the amount of the methionine ingested. Swine seemed to adapt to the excessive methionine intake, which did not show any toxicity in the experimental conditions.

L16 ANSWER 7 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
ACCESSION NUMBER: 1998:853989 SCISEARCH
THE GENUINE ARTICLE: 134RT
TITLE: Gene discovery in the wood-forming tissues of poplar: Analysis of 5,692 expressed **sequence** tags
AUTHOR: Sterky F; Regan S; Karlsson J; Hertzberg M; Rohde A; Holmberg A; Amini B; Bhalerao R; Larsson M; Villarroel R; VanMontagu M; Sandberg G; Olsson O; Teeri T T; Boerjan W; Gustafsson P; Uhlen M; Sundberg B; Lundeberg J (Reprint)
CORPORATE SOURCE: SWEDISH UNIV AGR SCI, DEPT FOREST GENET & PLANT PHYSIOL, SE-90183 UMEA, SWEDEN (Reprint); SWEDISH UNIV AGR SCI, DEPT FOREST GENET & PLANT PHYSIOL, SE-90183 UMEA, SWEDEN; ROYAL INST TECHNOL, KUNGEL TEKNISKA HOGSKOLAN, DEPT BIOTECHNOL, SE-10044 STOCKHOLM, SWEDEN; UMEA UNIV, DEPT PLANT PHYSIOL, SE-90187 UMEA, SWEDEN; STATE UNIV GHENT, FLANDERS INTERUNIV INST BIOTECHNOL, DEPT GENET, GENET LAB, B-9000 GHENT, BELGIUM; UNIV GOTHENBURG, LUNDBERG LAB, DEPT CELL & MOL BIOL, SE-40530 GOTHENBURG, SWEDEN
COUNTRY OF AUTHOR: SWEDEN; BELGIUM
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (27 OCT 1998) Vol. 95, No. 22, pp. 13330-13335.
Publisher: NATL ACAD SCIENCES, 2101 CONSTITUTION AVE NW, WASHINGTON, DC 20418.
ISSN: 0027-8424.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 40
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB A rapidly growing area of genome research is the generation of expressed **sequence** tags (ESTs) in which large numbers of randomly selected cDNA clones are partially **sequenced**. The collection of ESTs reflects the level and complexity of gene expression in the sampled tissue, To date, the majority of plant ESTs are from nonwoody

plants such as Arabidopsis, Brassica, **maize**, and rice. Here, we present a large-scale production of ESTs from the wood-forming tissues of two poplars, Populus tremula L, x tremuloides Michx, and Populus trichocarpa 'Trichobel.' The 5,692 ESTs analyzed represented a total of 3,719 unique transcripts for the two cDNA libraries, Putative functions could be assigned to 2,245 of these transcripts that corresponded to 820 protein functions. Of specific interest to forest biotechnology are the 4% of ESTs involved in various processes of cell wall formation, such as lignin and cellulose synthesis, 5% similar to developmental regulators and members of known signal transduction pathways, and 2% involved in hormone biosynthesis. An additional 12% of the ESTs show ed no significant similarity to any other DNA or protein **sequences** in existing databases. The absence of these **sequences** from public databases may indicate a specific role for these proteins in wood formation. The cDNA libraries and the accompanying database are valuable resources for forest research directed toward understanding the genetic control of wood formation and future endeavors to modify wood and fiber properties for industrial use.

L16 ANSWER 8 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
ACCESSION NUMBER: 91:265899 SCISEARCH
THE GENUINE ARTICLE: FK184
TITLE: TRANSIENT OCCURRENCE OF EXTRACHROMOSOMAL DNA OF AN ARABIDOPSIS-THALIANA TRANSPOSON-LIKE ELEMENT, TAT1
AUTHOR: PELEMAN J; COTTYN B; VANCAMP W; VANMONTAGU M (Reprint); INZE D
CORPORATE SOURCE: STATE UNIV GHENT, GENET LAB, B-9000 GHENT, BELGIUM
COUNTRY OF AUTHOR: BELGIUM
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1991) Vol. 88, No. 9, pp. 3618-3622.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 27
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Analysis of 11 genomic clones containing the S-**adenosylmethionine synthetase** 1 gene (saml) of Arabidopsis thaliana revealed the presence of a 431-base-pair (bp) insertion in the 3' end of saml in one of these clones. The inserted **sequence**, called Tat1, shows structural features of a transposon. It is flanked by a 5-bp duplication of the target site DNA and has 13-bp inverted repeats at its termini. Two highly homologous elements situated in a different genomic context were isolated from a genomic library. Genomic Southern analysis indicates that there are at least four copies of Tat1 present in the A. thaliana ecotype Columbia genome. Different hybridization patterns are observed with DNAs derived from different ecotypes of Arabidopsis thaliana, indicating that the element has moved since the divergence of these ecotypes. In two populations of A. thaliana, linear extrachromosomal Tat1-homologous DNA has been observed. The presented data are consistent with the hypothesis that Tat1 is an active transposable element.

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 GENBANK (R) IS A REGISTERED TRADEMARK OF THE U.S. DEPARTMENT
 OF HEALTH AND HUMAN SERVICES.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
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L25  ANSWER 1 OF 2        GENBANK.RTM.  COPYRIGHT 2002

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   TITLE (TI):            Maize Protein Kinase CK2: Regulation and functionality
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   JOURNAL (SO):          Plant J. (2001) In press
REFERENCE:                2  (bases 1 to 1310)
   AUTHOR (AU):           Riera,M.
   TITLE (TI):            Direct Submission
   JOURNAL (SO):          Submitted (01-MAR-2000) Molecular Genetics, CID-CSIC,
                          Jordi Girona 18-26, Barcelona 08034, Spain

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L25 ANSWER 2 OF 2 GENBANK.RTM. COPYRIGHT 2002

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GenBank ACC. NO. (GBN): Z24449
CAS REGISTRY NO. (RN): **150836-99-0**
SEQUENCE LENGTH (SQL): 5280
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DIVISION CODE (CI): Plants, fungi, algae
DATE (DATE): 31 May 1996
DEFINITION (DEF): Z.mays mRNA for acetyl CoA carboxylase (partial).
KEYWORDS (ST): acetyl CoA carboxylase
SOURCE: Zea mays.
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Poales; Poaceae; PACC clade; Panicoideae;
Andropogoneae; Zea
NUCLEIC ACID COUNT (NA): 1510 a 995 c 1298 g 1477 t
COMMENT:
On Apr 18, 1996 this sequence version replaced gi:460820.
REFERENCE: 1 (bases 1 to 5280)
AUTHOR (AU): Ashton,A.R.; Jenkins,C.L.; Whitfeld,P.R.
TITLE (TI): Molecular cloning of two different cDNAs for maize acetyl CoA carboxylase
JOURNAL (SO): Plant Mol. Biol., 24 (1), 35-49 (1994)

OTHER SOURCE (OS): CA 120:237394
REFERENCE: 2 (bases 1 to 5280)
AUTHOR (AU): Ashton,A.R.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (14-JUL-1993) Ashton A. R., CSIRO, Division of Plant Industry, Canberra, ACT, AUSTRALIA, 2601
REFERENCE: 3 (bases 1 to 5280)
AUTHOR (AU): Ashton,A.R.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (14-MAR-1994) Ashton A. R., CSIRO, Division of Plant Industry, Canberra, ACT, AUSTRALIA, 2601

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 3	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 4	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 5	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 6	Oct 22	Over 1 million reactions added to CASREACT
NEWS 7	Oct 22	DGENE GETSIM has been improved
NEWS 8	Oct 29	AAASD no longer available
NEWS 9	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS 10	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS 11	Nov 29	COPPERLIT now available on STN
NEWS 12	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS 13	Nov 30	Files VETU and VETB to have open access
NEWS 14	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 15	Dec 10	DGENE BLAST Homology Search
NEWS 16	Dec 17	WELDASEARCH now available on STN
NEWS 17	Dec 17	STANDARDS now available on STN
NEWS 18	Dec 17	New fields for DPCI
NEWS 19	Dec 19	CAS Roles modified
NEWS 20	Dec 19	1907-1946 data and page images added to CA and CAplus
NEWS 21	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 22	Jan 25	Searching with the P indicator for Preparations
NEWS 23	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS 24	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
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NEWS 26	Mar 08	Gene Names now available in BIOSIS

NEWS EXPRESS	February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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=> s methionine adenosyltransferase
L1         1429 METHIONINE ADENOSYLTRANSFERASE

=> s corn or maize
L2       244548 CORN OR MAIZE

=> s l1 and l2
L3             1 L1 AND L2

=> s soybean
L4       165111 SOYBEAN

=> s l1 and l4
L5             1 L1 AND L4

=> d ibib abs l3

L3   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1998:806766  CAPLUS
DOCUMENT NUMBER:          130:49186
TITLE:                    Plant amino acid biosynthetic enzymes and their gene
                          DNA sequences
INVENTOR(S):              Falco, Saverio Carl; Allen, Stephen M.; Rafalski, J.
                          Antoni; Hitz, William D.; Kinney, Anthony John; Abell,
                          Lynn Marie; Thorpe, Catherine Jane
PATENT ASSIGNEE(S):       E.I. Du Pont de Nemours and Co., USA
SOURCE:                   PCT Int. Appl., 98 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

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     WO 9855601         A2   19981210       WO 1998-US11692  19980605
     WO 9855601         A3   19990304
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             MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT,
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EP 979296	A2	20000216	EP 1998-925282		19980605
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BR 9809967	A	20000801	BR 1998-9967		19980605
PRIORITY APPLN. INFO.:			US 1997-48771	P	19970606
			US 1997-49443	P	19970612
			US 1997-48774	P	19970606
			WO 1998-US11692	W	19980605

AB This invention relates to an isolated nucleic acid fragment encoding a plant enzyme that catalyzes steps in the biosynthesis of lysine, threonine, methionine, cysteine and isoleucine from aspartate, the enzyme a member selected from the group consisting of: dihydrodipicolinate reductase, diaminopimelate epimerase, threonine synthase, threonine deaminase and S-adenosylmethionine synthetase. The invention also relates to the construction of a chimeric gene encoding all or a portion of the enzyme, in sense or antisense orientation, wherein expression of the chimeric gene results in prodn. of altered levels of the enzyme in a transformed host cell.

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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Sep 17  IMSworld Pharmaceutical Company Directory name change
                  to PHARMASEARCH
 NEWS  3  Oct 09  Korean abstracts now included in Derwent World Patents
                  Index
 NEWS  4  Oct 09  Number of Derwent World Patents Index updates increased
 NEWS  5  Oct 15  Calculated properties now in the REGISTRY/ZREGISTRY File
 NEWS  6  Oct 22  Over 1 million reactions added to CASREACT
 NEWS  7  Oct 22  DGENE GETSIM has been improved
 NEWS  8  Oct 29  AAASD no longer available
 NEWS  9  Nov 19  New Search Capabilities  USPATFULL and USPAT2
 NEWS 10  Nov 19  TOXCENTER(SM) - new toxicology file now available on STN
 NEWS 11  Nov 29  COPPERLIT now available on STN
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=> d ibib abs l3

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                          CODEN: PIXXD2
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BR 9809967	A	20000801	BR 1998-9967		19980605
PRIORITY APPLN. INFO.:			US 1997-48771	P	19970606
			US 1997-49443	P	19970612
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L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

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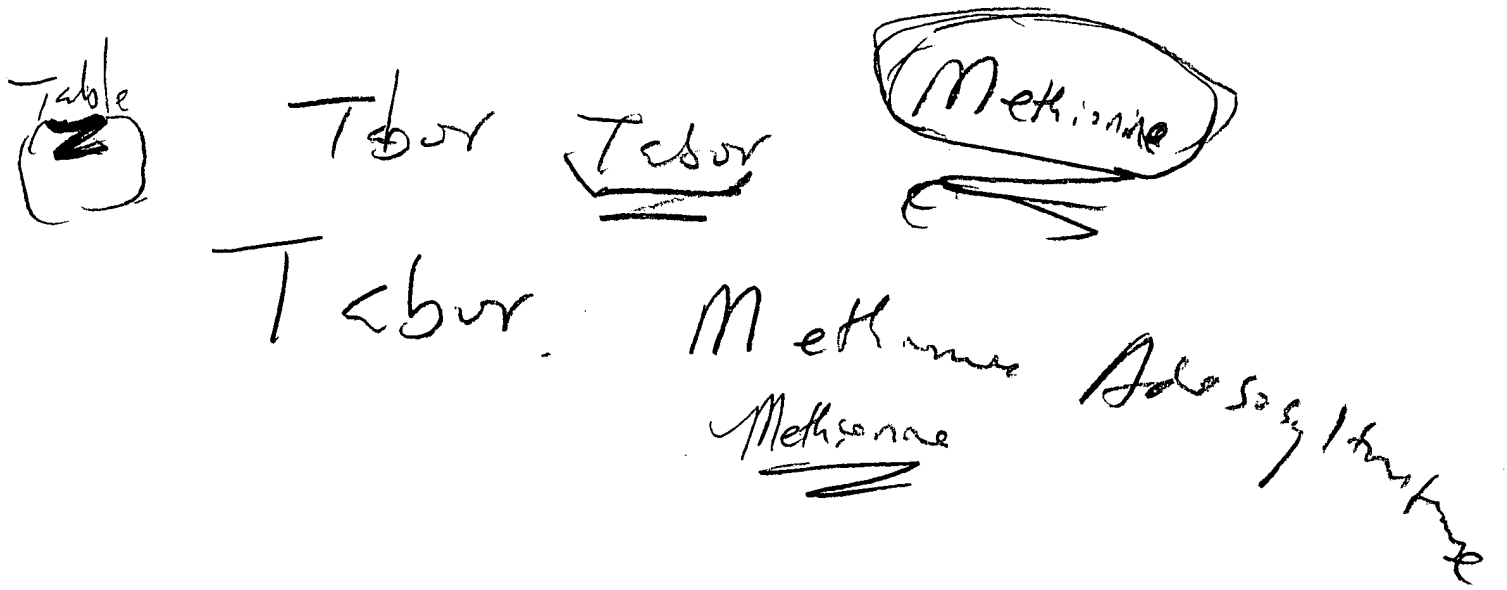

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